

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

POWER INTEGRATIONS, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 08-309-JJF-LPS
	)	
FAIRCHILD SEMICONDUCTOR	)	
INTERNATIONAL, INC., FAIRCHILD	)	
SEMICONDUCTOR CORPORATION,	)	
and SYSTEM GENERAL CORPORATION,	)	
	)	
Defendants.	)	

**DEFENDANT AND COUNTERCLAIMANTS' REPLY  
SUPPLEMENTAL CLAIM CONSTRUCTION BRIEF**

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Power Integrations falsely accuses Fairchild of not addressing the Court's question in its Supplemental Claim Construction Brief. Fairchild and its expert, Dr. Gu-Yeon Wei, specifically explained that one of ordinary skill, reading the specification and claims of U.S. Patent No. 7, 352,595 (the '595 patent), would not understand the claimed "first reference signal" or "second signal" of claim 17 to be limited to analog signals simply because they are developed and used by operational amplifiers in the embodiment shown in Figure 3. D.I. 174, p. 3-4, D.I. 175, ¶ 12. This is directly responsive to the Court's inquiry.

Power Integrations distorts the Court's inquiry to require first that the circuitry shown in Figure 3 is imported into claim 17, and then ask the question whether a claim including such analog circuitry is limited to the use of analog signals. D.I. 184, p. 3 n. 2. Such circular reasoning could not possibly be what the Court intended. Of course if claim 17 required analog circuitry, the signals developed and used by that circuitry would be analog. It is undisputed, however, that claim 17 does not claim operational amplifiers or any other specific circuitry.

Power Integrations would turn claim construction law on its head. Power Integrations argues, without any support, that the limitations of the embodiment of Figure 3 should necessarily be read into claim 17 if the patent does not specifically teach a different implementation of the claimed invention. This is directly contrary to Federal Circuit law, which holds that: "***An applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention.***" *SunRace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1305-06 (Fed. Cir. 2003). When, as here, an invention is not restricted to a particular embodiment, it is improper to read limitations from that embodiment into the claim, ***even if it is the sole embodiment*** described in the patent. *See id.* at 1302. The question is not whether the patent specifically teaches a digital implementation, as Power Integrations argues, but rather, whether the specification makes clear that the disclosed invention is narrower than the language of claim 17 (which would cover both analog and digital signals). *See Alloc, Inc. v. ITC*, 342 F.3d 1361, 1370 (Fed. Cir. 2003).

The '595 patent discloses an invention for compensating for the voltage drop across a cable using a signal representative of the output current (i.e., the second signal of the claim) to adjust a reference voltage (i.e., the first reference signal of the claim) inside the regulator, to in turn adjust the regulator output voltage. D.I. 174, pp. 1-3. The embodiment shown in Figure 3 describes one particular implementation of this invention. Claim 17, on the other hand, claims the invention more broadly, as disclosed in the specification. Whether any specific circuitry would meet the limitations of claim 17 is a question for infringement and should not be decided in the context of claim construction, as Power Integrations attempts to do.

Power Integrations does not dispute that the digital circuit described by Dr. Wei would meet the elements of claim 17. Rather, Power Integrations suggests that there is something extraordinary about designing digital circuits, as opposed to analog circuits, and that one of ordinary skill would not think to use digital circuit techniques to implement components shown as analog circuits in the figures of the patent.<sup>1</sup> This argument ignores the fact that the embodiments described the '595 patent are already hybrid circuits that include both digital and analog circuitry. *See* Wei Decl., ¶ 12; D.I. 120-2, Exh. 3, Figs. 3-4. A person of ordinary skill, implementing the embodiment shown in Figures 3 and 4 of the patent, would already have had to overcome any difficulties inherent in digital circuitry, just as they would have to deal with the difficulties associated with analog circuit techniques. *See* Wei Decl., ¶ 10 (one of ordinary skill in the art would understand the related trade offs of implementing circuitry using either analog or digital circuit techniques).

The fact that the embodiments shown in Figures 3 and 4 utilize a combination of analog and digital circuitry also demonstrates the irrelevance of Power Integrations' complaint that Dr. Wei did not adequately show that the entire power converter could be implemented using digital

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<sup>1</sup> Power Integrations accuses Fairchild of being "disingenuous" in describing the level of one of ordinary skill with reference to experience designing "power supplies" instead of experience designing "analog circuits." D.I. 184, p.2, n.1. This argument borders on the absurd given that all of the patents at issue in this case relate to switching power supplies. PI Opening CC Brief, D.I. 166, p.2.

circuit techniques. Just because the “first reference signal” or “second signal” are generated using digital circuitry does not require the entire circuit to be digital. *See* D.I. 175, ¶ 12.

Similarly, Power Integrations’ complaint that Dr. Wei did not address the external resistor used to compensate for variations in cable length is irrelevant to the construction of claim 17 since that claim is not directed towards this feature of the disclosed invention. In any event, it is undisputed that digital-to-analog converters and analog-to-digital converters were well known in the art. D.I. 174, p. 3, n.1. One of ordinary skill would have understood how to convert digital signals to analog signals and vice versa.

Power Integrations’ argument that Dr. Wei did not address the relevant time period because he noted that “since at least the mid-nineties circuit designers have been implementing what traditionally would have been predominantly analog circuit blocks as blocks that use most, if not all, digital circuitry” is also flawed. D.I. 175, ¶ 12. “Since at least the mid-nineties” necessarily encompasses the filing date of the ‘595 patent a decade later. The point that Dr. Wei was making was that by the time the ‘595 patent was issued, (1) circuit designers had long been using digital circuit techniques, (2) circuit designers often used analog representations to describe complex functionality, and (3) one of skill in the art (from the mid-nineties on) would understand that circuitry depicted as analog circuitry in a schematic could be implemented using either analog or digital circuit techniques. *Id.* at 10, 12.

For the foregoing reasons, and the reasons set forth in their opening, responsive and supplemental claim construction briefs, Defendants and Counterclaimants respectfully request the Court to give the phrase “first reference signal is varied in response to the change of the second signal” its plain and ordinary meaning.

ASHBY & GEDDES

/s/ Lauren E. Maguire

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